

# Chlorophyllium

- BGG 24 hour design challenge version -

A greenhouse management game by J-P Kurikka.

For 2 to 4 players, 10 years old and above. For 3-4 players print double PnP Files.

## Setup

Give all the players their own game board (greenhouse) and 3 different marker tokens (Ph, temperature and moisture), 3 cup markers and 3 leaf markers. Players place a Ph token on their board to point to a Ph value of 7.0 and temperature and moisture tokens 0% and 10 °C.

Separate the plant (green cards), the soil amendment (brown cards) and the fertiliser (yellow cards) decks and shuffle them independently. Put them aside as separate draw piles.

Reserve some space for separate discard piles for all card types. If the draw pile is depleted the corresponding discard pile is shuffled to form a new draw pile. Deal all players 11 cards from the fertiliser draw pile and 2 cards from the soil amendment draw pile. These are the player's hand cards and they can be kept private to the player.

Sort the money (called Leafs in the game L for short) aside based so that 1L, 5L and 10L bills go to their own piles. This now forms the bank. Give each player 10 money from the bank using 1L bills.

The player who has last planted a plant starts the game.

## Aim of the game

During the 5 rounds players try to optimize the environment and minerals they have in their greenhouses in a way that it can support from 1 to 3 plants as well as possible and collect money from the plants grown.

The amount of money a player gets from the plants grown depends on whether a plant is merely surviving or thriving and how many plants the player has successfully grown during the round.

## The Greenhouse

Each player has their own green house (game board).



First, there are three environment meters on the left side of the greenhouse (Ph, moisture % and temperature °C). Players use the marker tokens to track the state of the environment meters.

Second, there are three plant slots on the top part of the greenhouse. The players put the plants that they selected to grow in these slots. One plant per slot.

Third, on the bottom of the greenhouse there are places for three different fertilisers. One slot for each type. Note: There must always be exactly 10 fertiliser cards together in the greenhouse after the fertilisers are first put there.

## Plant cards

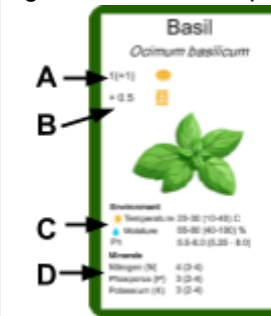
Plant cards describe a plant that a player might grow in their greenhouse. Plant cards show the reward, indicating how much money the player gets (A) from plant surviving and how much extra they get if the plant thrives (amount in the parenthesis after the base value).

If a plant is successfully grown (it does not die during the round), it may affect the soil's Ph value. The plant may acidify (lower the Ph), alkalize (raise the Ph), or be neutral (no effect).

The environmental values (C) of temperature, moisture and Ph on the plant card tell first the range of the

environmental factors in what the plant thrives and after that the larger range tells the range where the plant survives.

The minerals section (D) of the plant card tells how many of each mineral type the plant requires to thrive, and the wider range within which it can survive. These numbers are checked against the amount of fertiliser cards of the type in the players' greenhouse at the end of the round. E.g Papyrus plants need 3 nitrogens to thrive and it survives if there are 3 to 4 nitrogens. So if the player has any other amount than 3 or 4 nitrogen cards in the greenhouse the Papyrus plant dies.



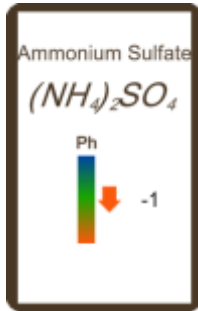
## Fertiliser cards



There are three types of fertiliser cards Nitrogen (N), Phosphorus (P) and Potassium (K). They indicate how much different minerals there are in the greenhouse's soil. At the end of a round each player should have exactly 10 fertiliser cards (all fertiliser types together) on their greenhouse's fertiliser slots.

If a player wants to add a fertiliser card so that they would have more than ten fertilisers in their greenhouse they must remove one fertiliser card and put it in the fertiliser discard pile.

## Soil amendment cards



Soil amendment cards are used to change Ph of the greenhouse soil. During their turn the player may discard any number of soil amendment cards and change the Ph value of the greenhouse as stated on the discarded soil amendment card.

### How to play

The game lasts 5 rounds and all the rounds use the following steps. In each step all the players work in their greenhouses simultaneously there is no turn rotation:

#### 1. Market fill.

Draw max three cards to table from all soil amendment, fertiliser and plant draw piles. These cards form a market. At the beginning of the round there should always be exactly three cards of each type in the market.

#### 2. 1st plant

Deal each player a single plant from the plant draw pile. This plant is put on the leftmost plant slot in the greenhouse.

#### 3. Adjust

You can now adjust the greenhouse's moisture and temperature values as much as you want.

#### 4. 2nd plant

Deal each player two cards from the plant draw pile. Players now choose which card they want to put on the second plant slot in the greenhouse.

#### 5. Readjust.

You can now readjust greenhouse temperature two steps and moisture by one step (e.g. from moisture from 70% to 75% or 65% and temperature from 20 °C to 17 °C or 23 °C).

#### 6. The trade.

Players may trade any cards in their hand with each other. Trade may also include money in addition to hand cards. In addition players may bid money on any card in the market. Bidding on a market card ends when no one is raising the bid. The player who had the largest bid takes the card to their hand and the money they bid goes to the bank.

**Note: during the first round all players must have at least 10 fertiliser cards in hand after the trade step.**

Trades after this step are not allowed.

#### 7. Fertilizing

Players may put fertiliser cards from their hand to their greenhouse so that there are exactly 10 fertiliser cards in the greenhouse.

If the greenhouse would have more than 10 fertiliser cards, the player must choose extra fertiliser cards to discard from the greenhouse.

Note: You may have as many extra fertiliser cards in your hand you want. Fertiliser cards cannot be picked to hand cards after they have been put in the greenhouse.

#### 8. Soil amendment

You may discard soil amendment cards from your hand to change the greenhouse's Ph value. Whenever you discard a soil amendment card, adjust the Ph by the amount marked on the discarded card. You may discard as many soil amendment cards you want to.

#### 9. Resolve

One plant at a time, compare all the plants environmental and mineral requirements to what there is in the greenhouse. If one or more survival conditions for a plant are not fulfilled the plant dies and the plant card is discarded.

If the plant survives, put a marker token with a green leaf on it. If all of the plants' thrive conditions are also fulfilled in the greenhouse, put also a marker token with a trophy on the card.

Also change the greenhouse Ph value as stated in the plant card.

#### 10. Monetize.

Collect your prize money for each plant that survived individually. If the plant has a leaf marker on it, collect the base prize and if the plant also has the trophy marker collect the extra prize in parenthesis. Multiply the prize money for the plant by counting all markers on the other surviving plants.

E.g. if there is a leaf marker on Papyrus you get 1L and your other plants have two leaf markers and one trophy marker you get 3x1L more.

#### 11. Clear and restart

Remove leaf and trophy markers and discard all plants in the green house. **Do not** discard any Fertiliser cards or hand cards. Then start a new round.

### Winning the Game

The player who has the most money at the end of round 5 wins the game.

### Request for feedback

Thank you for taking the time to go through Chlorophyllium (BGG 24 hour design challenge version) . As you are currently having a close look at the game I would love to hear your comments and feelings about the game.

Did you just browse through the rule book or did you have a chance to try the game, it does not matter. Any comments that you have are very welcome and useful in game design. So please, point your browser to address <https://wannabeboardgamedesigner.com/chlorophyllium-feedback> and answer a short questionnaire.

Thank you!